

PATENT

Atty. Dkt. No. NVDA/P001277

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): Apparatus comprising:

an output device interfaced to a motherboard;

a fixed rendering device mounted to the motherboard for generating information to be output on said output device;

a connector for attaching one of a plurality of different field-changeable graphics cards including a field-changeable rendering card, to the motherboard, said field-changeable rendering card capable of housing a discrete rendering device for generating information to be output on said output device, the connector comprising a plurality of connector pins and adapted to electronically detect the presence of the field-changeable rendering card and signal the presence and mode of operation of the field-changeable rendering card; and

detection circuitry for detecting that a field-changeable rendering card housing a discrete rendering device is coupled to said connector and causing information from said field-changeable rendering card housing a discrete rendering device to be output on said output device.

Claim 2 (Original): The apparatus of claim 1, wherein said fixed rendering device is an integrated graphics processor and said discrete rendering device is a discrete graphics processing unit.

Claim 3 (Currently Amended): The apparatus of claim 2, wherein said ~~graphics processing unit~~ discrete rendering device is adapted to receive a PCI express signal from said integrated graphics processor in order to generate a plurality of signals for display on said output device.

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Claim 4 (Currently Amended): The apparatus of claim [[3]] 11, wherein said graphics processing unit is adapted to generate low voltage differential signaling (LVDS), digital video interface (DVI), television (TV) and video graphics array (VGA) signals.

Claim 5 (Currently Amended): The apparatus of claim 1, wherein said field-changeable rendering card does not house a discrete rendering device and acts as comprises a passive loop-through card enabling the implementation of LVDS features in the apparatus.

Claim 6 (Original): The apparatus of claim 1, wherein the discrete rendering device is a transmission minimized differential signaling (TMDS) transmitter, and the field-changeable rendering card is a passive loop-through card.

Claim 7 (Original): The apparatus of claim 5, wherein said passive loop-through card completes circuit paths for signals output from said fixed rendering device to said output device.

Claim 8 (Original): The apparatus of claim 7, wherein said output device is a low voltage differential signaling (LVDS) display panel.

Claim 9 (Original): The apparatus of claim 7, wherein said output device is a digital video interface (DVI) display panel.

Claim 10 (Original): The apparatus of claim 1, wherein said field-changeable rendering card is an audio chip.

Claim 11 (New): The apparatus of claim 1, wherein the plurality of field-changeable graphics cards includes a passive loop-through card and the mode of operation of the card detected by the connector pins indicates that a passive loop-through card is interfaced to the connector for enabling implementation of low voltage differential signaling (LVDS) features in the apparatus.

Claim 12 (New): The apparatus of claim 11, wherein the connector is adapted to cause an LVDS signal to be routed through the loop-through card to the output device comprising a display.

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Claim 13 (New): The apparatus of claim 1, wherein the plurality of field-changeable graphics cards includes a passive loop-through card and the edge connector is adapted to receive a plurality of DV1 signals on several of the plurality of connector pins and route the DVI signals through the loop-through card to the output device.

Claim 14 (New): The apparatus of claim 13, wherein the loop-through card further comprises a discrete rendering device.

Claim 15 (New): The apparatus of claim 1, wherein any of the plurality of different field-changeable graphics cards comprises a loop-through card and a discrete rendering device.

Claim 16 (New): The apparatus of claim 1, wherein the connector is adapted to cause a peripheral component interface (PCI) express signal to be routed from a driver to the active graphics card to generate a plurality of output display signals.

Claim 17 (New): The apparatus of claim 1, wherein the connector is adapted to allow a manufacturer to configure a single motherboard for at least two different graphics modes utilizing different ones of the fully-changeable graphics cards.

Claim 18 (New): The apparatus of claim 1, wherein the connector is configured to allow a user of a computing device to replace a graphics system post-assembly.

Claim 19 (New): The apparatus of claim 1, wherein the connector is further adapted to maintain a graphics card in a substantially parallel, spaced apart relation relative to the motherboard.